

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05K7/20 H02B1/56

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H05K H02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 514 746 A (LUENDQVIST GOESTA B) 30 April 1985 (1985-04-30) the whole document	1-4
X	EP 0 767 601 A (GEN ELECTRIC) 9 April 1997 (1997-04-09) the whole document	1-4
X	US 2002/021557 A1 (KAWASHIMA HISASHI ET AL) 21 February 2002 (2002-02-21) the whole document	1
X	US 2002/007641 A1 (MARSALA JOSEPH) 24 January 2002 (2002-01-24) the whole document	1

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- *G* document member of the same patent family

Date of the actual completion of the international search

2 July 2003

Date of mailing of the international search report

08/07/2003

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/00212

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 406 807 A (ASHIWAKE NORIYUKI ET AL) 18 April 1995 (1995-04-18) the whole document ---	1
X	DE 39 31 570 C (LICENTIA) 7 March 1991 (1991-03-07) the whole document ---	1
X	DE 75 00 696 U (BROWN BOVERI & CIE) 4 November 1976 (1976-11-04) the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/00212

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4514746	A	30-04-1985	NONE	
EP 0767601	A	09-04-1997	EP 0767601 A1	09-04-1997
US 2002021557	A1	21-02-2002	JP 3315649 B2	19-08-2002
			JP 2000059062 A	25-02-2000
			EP 0985999 A1	15-03-2000
			US 6404640 B1	11-06-2002
US 2002007641	A1	24-01-2002	JP 2001349651 A	21-12-2001
			US 2003061824 A1	03-04-2003
			CA 2342570 A1	04-10-2001
			EP 1143778 A1	10-10-2001
US 5406807	A	18-04-1995	JP 6004179 A	14-01-1994
			JP 6104357 A	15-04-1994
DE 3931570	C	07-03-1991	DE 3931570 C1	07-03-1991
DE 7500696	U		NONE	